



# Poison HOTLINE

1-800-222-1222

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*Did you know .....*  
**Smoke inhalation is the most common cause of acute cyanide poisoning.**

The American Association of Poison Control Centers, the Postgraduate Institute for Medicine, and Strategic Consultants International jointly created an infographic on enclosed space fires and cyanide exposure.

Go [HERE](#) to download the infographic. You may distribute this to your pre-hospital providers and/or emergency department staff to help in the recognition and treatment of cyanide poisoning from smoke inhalation.

Poison center specialists and toxicologists are available 24/7 to help with diagnosing and managing suspected cyanide poisonings: **1-800-222-1222**.

## Flumazenil Use in Benzodiazepine Overdose

Flumazenil, a benzodiazepine (BDZ) antagonist, can reverse a BDZ's CNS effects by competitive inhibition of the BDZ at the GABA receptor.

The Iowa Poison Control Center (IPCC) has been told about many cases in which flumazenil given in an OD, either as treatment or a diagnostic aid, led to the patient seizing. The IPCC rarely recommends the use of flumazenil for the three very important reasons described in the following scenarios. These possibly life-threatening scenarios may have been avoided had flumazenil not been given. In all three scenarios, the treatment for the seizures is a...BDZ.

(1) A patient presents comatose with stable vital signs following an overdose of an unknown drug. BDZ overdose is suspected because this is the classic presentation for a BDZ OD. Flumazenil is administered and the patient seizes. Whether or not this patient ingested a BDZ is not important because flumazenil by itself lowers the seizure threshold.

(2) A patient who chronically uses/abuses BDZs. presents comatose with stable vitals and flumazenil is administered. The patient wakes up, develops agitation, headache, dizziness, N/V, tremor, and then seizes. The flumazenil caused BDZ withdrawal which resulted in the seizure.

(3) A patient presents very somnolent after ingestion of a BDZ and a "bath salt." Flumazenil is administered and the patient has repeated seizures. The pro-seizure effects of pharmaceuticals and drugs of abuse can be suppressed by the co-ingestion of a BDZ. The flumazenil unmasked the pro-seizure effects of the other drug leading to seizures, HTN, agitation, etc.

The IPCC may consider using flumazenil in a patient (a) whose complete past medical, medication and drug use history are already known by the HCPs, and (b) received a known dose of a BDZ in a health care setting.

Patients overdosing on BDZs alone require little more than good supportive care. Intubation for airway protection may be indicated. If considering flumazenil administration, we recommended discussing this with the IPCC prior to administration. Nurses, pharmacists, and physicians are available 24 hours a day to assist and answer any questions or concerns.

*Grant Houselog, PharmD, CSPI  
Certified Specialist in Poison Information*

**POISON**  
**Help**  
**1-800-222-1222**

*Hotline Editor: Edward Bottei, MD*

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